REMARKS

This paper is responsive to a Final Office Action mailed February 21, 2008. Prior to this response, claims 1-2, 4, 6-9, 11-17, 19, 21-24, and 26-30 were pending. After amending claims 1, 7, 16, and 22, claims 1-2, 4, 6-9, 11-17, 19, 21-24, and 26-30 remain pending.

In Section 6 of the Office Action claims 1-2, 4, 6-9, 11-17, 19, 21-24, and 26-30 have been rejected under 35 U.S.C. 103(a) as unpatentable with respect to Kawamoto (US 7,199,890), in view of Kuo et al. ("Kuo"; US 6,400,471) and Yamamoto et al. ("Yamamoto"; US 7,199,890. The Office Action acknowledges that Kawamoto fails to disclose a plurality of backplane plugins, or generating a processed IR document using the plurality of plugins. The Office Action states that Kuo discloses these features, and that it would have been obvious to combine references because they both coordinate the functioning and communication of various image processing stages and handle data flow between stages. The motivation to combine references would be to integrate different platforms in an effort to reduce costs. The Office Action also acknowledges that Kawamoto and Kuo fail to disclose parallel processing, or a combination of parallel and serial processing, but that Yamamoto discloses these features, and that it would have been obvious to use parallel and serial processing of a document in a despooling system. The motivation to combine references would have been to provide more than one method of processing data, depending upon the speed and economy of processing. This rejection is traversed as follows.

Kawamoto describes a system for automatic selection (switching) of a printer/printer driver from a pool of printers. Application

data is first passed through a first (common) printer driver 301, which produces a common output that is independent of the target printer. The output (e.g., intermediate format) is then directed towards the system spooler. Depending on the current print condition (e.g., availability, speed, error, etc.), a printer is picked from the printer pool. Once a printer is selected, a printer driver specific to the printer is determined (e.g., driver 203, 601, or 602). A despooler 305 then plays the graphics commands from the common output back to the selected printer driver. The selected printer driver 203 then converts the output to a format specific to the selected printer, spools the output to a second spooler 204, and sends printer specific data to the printer 1500.

In other words, Kawamoto's solution is implemented at the source of the print job, in the host computer 3000. In contrast, the claimed invention is implemented in the despooling subsystem of the printer. In Kawamoto, the format converter must be available in the source when the user generates the print job.

Kuo discloses a system for processing a digital image from a digital camera. Raw image data in a CCD format is captured by a digital camera 100 (Fig. 6). An image processing backplane 630 includes 3 plug-in image processing software modules 622, 624, and 626. A line reader 620 and line writer 650 manage the flow of CCD data. The backplane 630 serially feeds the data from one plug-in to the next. After processing, the data is converted to a JPEG image by JPEG module 628 (col. 9, ln. 9-38).

The ***Response to Arguments*** Section of the Office Action notes that a print job may be raster data, or some representation other that PDL, such as images, citing page 10, lines 15-22 of the Applicant's

specification. In traverse, even if some print jobs can be referred to as images, the corollary statement is not necessary true. An image is not necessary a print job. More explicitly, raw CCD image data is not a print job in a first printer language format, and raw CCD data is not in a printer language associated with a printer device.

In other words, Kuo does not disclose a printer device/printer language capable of printing CCD data. Even if Kuo's raw CCD date is considered to be a form of IR data, Kuo does not disclose a process of converting a print job in a printer language format into IR data. Therefore, Kuo does not accept a print job in a printer language format associated with a first printer device, as recited in claims 1 and 16.

Like Kawamoto, Kuo's processing is performed in a source spooler device 700. A JPEG output line is copied onto disk 660. Disk 660 can subsequently be loaded onto a printing device. In contrast, the claimed language conversion and IR processing steps are performed in a print subsystem despooler.

Further, Kuo does not describe an IR document that can be parallel processed by plugins accessing an IR document stored in a shared memory. As noted above, Kuo's backplane serially processes CCD data through the plugins.

In Fig. 3 Yamamoto discloses a program for driving either a parallel or serial interface, connected to a printer (col. 6, ln. 5-11). As is well known in the art, parallel port and serial port interfaces refer to the protocol used to communicate between computer devices, i.e., between a personal computer and a printer. A parallel port interface is defined by the IEEE 1284 standard, and is now obsolete. A serial interface is

associated with the RS-232 standard, and interfaces such as Ethernet, FireWire, and USB.

The Applicant respectfully submits that parallel and serial port interfaces have nothing to do with document processing, only document transmission. Yamamoto does not disclose converting a print job into an IR document that is independent of the target device and target device language. Yamamoto does not disclose either parallel or serial processing of an IR document. Yamamoto does not disclose any processes performed in a printer despooler subsystem.

An invention is unpatentable if the differences between it and the prior art would have been obvious at the time of the invention. As stated in MPEP § 2143, the *KSR International Co. v Teleflex Inc.* decision (82 USPQ2d 1385, 1395-1397, 2007) suggests 7 exemplary rationales to support a conclusion of obviousness, which include:

A) Combining prior art elements according to known methods to yield predictable results;

B) Simple substitution of one known element for another to obtain predictable results;

C) Use of known technique to improve similar devices (methods, or products) in the same way;

D) Applying a known technique to a known device (method, or product) ready for improvement to yield predictable results;

E) "Obvious to try" – choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success;

F) Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on

design incentives or other market forces if the variations are predictable to one of ordinary skill in the art;

G) Some teaching, suggestion, or motivation in prior art would have lead one of ordinary skill to modify the prior art reference or the combine prior art references teachings to arrive at the claimed invention.

The Office Action states that modifications to Kawamoto would have been obvious to one of ordinary skill in the art in light of Kuo and Yamamoto. This rejection appears to be most closely grounded in the G) rationale - Some teaching, suggestion, or motivation in prior art would have lead one of ordinary skill to modify the prior art reference or the combine prior art references teachings to arrive at the claimed invention.

With respect to this rationale, MPEP 2143 (G) states that the rejection must articulate the following criteria to resolve the *Graham* factual analysis:

(1) a finding that there was some teaching, suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings;

(2) a finding that there was a reasonable expectation of success; and

(3) whatever additional findings based on the Graham factual inquiries may be necessary, in view of the facts of the case under consideration, to explain a conclusion of obviousness.

With respect to the above-referenced first factual analysis criteria, the three references have been combined based upon the

assumption that the combination discloses every limitation recited in Applicant's claims 1 and 16. However, as acknowledged in the Office Action, Kawamoto fails to disclose the conversion of a print job into an IR document, or the generation of a multiple processed IR document using a plurality of plugins. Further, Kawamoto does not disclose any processes performed in a printer despooler subsystem. As discussed above, neither Kuo nor Yamamoto disclose the conversion of a print job into an IR document, or any processes performed in a printer despooler. Neither Kuo nor Yamamoto disclose an IR document being parallel processed by plugins. Therefore, even if elements from Kuo and Yamamoto are combined with Kawamoto, that combination does not explicitly disclose every limitation of claims 1 and 16. Claims 2, 4, 6-9, and 11-15, dependent from claim 1, and 17, 19, 21-24, and 26-30, dependent from claim 16, enjoy the same advantages.

The Office Action states that it would have been obvious to apply the features of Kuo and Yamamoto to Kawamoto, to coordinate the functioning and communication of various image processing stages and to provide more than one method of processing data. The motivation to combine references would be to integrate different platforms in an effort to reduce costs, and to provide more than one method of processing data. However, the motivation to integrate different platforms and to provide alternate data processing paths does not actually suggest a particular means of modifying Kawamoto in such as way as to make the Applicant's claim limitations obvious.

In responding to the Applicant's assertion that there is no suggestion to combine references, the ***Response to Arguments*** Section of

the Office Action states that the prior art cited is all from Class 358, which deals with communication or reproduction of images. In traverse, it should be noted that not every patent in Class 358 suggests modifications to other patents in the same class. Neither is it necessarily relevant that Kuo suggests modifications to Kawamoto. Rather, the rejection must present an analysis of how Kuo suggests modifications to Kawamoto that make the claimed invention limitations obvious.

Kawamoto's method does not perform multiple processes upon intermediate code within a single print driver. Instead, Kawamoto's method requires the common data to be written to disk (1st spooler pass) and then read back (2nd spooler pass) for the second printer driver. In contrast, the claimed invention keeps the IR document in a shared data memory, so that multiple processes (plugins) can all access the same IR document in memory. As a result, the recited IR document can be parallel processed.

Kuo does not disclose the conversion of a print job in a printer language format into an IR document. Kuo does not describe parallel processing an IR document. While Kuo does describe a backplane with a plurality of plug-ins, the CCD must be serially processed. In contrast, because the Applicant's data is an IR document in shared memory, it can be parallel processed (or serial processed) by the plugins.

Therefore, Kuo cannot be said to suggest modifications to Kawamoto that would convert a print job in a print language format into an IR document for processing. Neither does Kuo suggest modifications to Kawamoto for performing any functions in a printer despooling subsystem. Since Yamamoto's parallel and serial port interfaces have nothing to do with document processing, Yamamoto does not suggest any

modifications to Kawamoto that would convert a print job into a print language format into an IR document for processing. Neither does Yamamoto suggest printer despooler processing.

A *prima facie* analysis of motivation is especially critical in the present circumstances since the rejection is predicated on limitations that are not explicitly disclosed in the prior art references. The claimed invention can only be obvious if an artisan makes substantial modifications to the Kawamoto reference. However, there is nothing in the Kuo or Yamamoto references that suggest printer despooler processes, the conversion of a print job in a printer language format into an IR document for processing, or suggest any alternate to serial document processing.

Neither does the obviousness rejection provide evidence that such a modification would have been obvious to one with skill in the art based upon what was well known at the time of the invention. "(A)nalysis [of whether the subject matter of a claim would have been obvious] need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ." *KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1740-41, 82 USPQ2d 1385, 1396 (2007). However, if the *prima facie* rejection is supported by what was known by a person of ordinary skill in the art then additional evidence should have been provided. Notable, when the source or motivation is not from the prior art references, "the evidence" of motive will likely consist of an explanation or a well-known principle or problem-solving strategy to be applied". *DyStar*, 464 F.3d at 1366, 80 USPQ2d at

1649. The Office Action does not supply evidence that it was well known at the time of the invention to convert a print job into an IR document for processing in a printer despooler subsystem.

With respect to the second analysis criteria needed to support the G) obviousness rationale, even if an expert were given the Kawamoto, Kuo, and Yamamoto references as a foundation, no evidence has been provided to show that there is a reasonable expectation of success in the claimed invention. That is, there can be no reasonable expectation of success if the references, and what was known by artisan at the time of the invention, do not teach all the limitations of the claimed invention.

In summary, the Applicant respectfully submits that a *prima facie* case of obvious has not been supported since the combination of Kawamoto, Kuo, and Yamamoto does not explicitly disclose every limitation of claims 1 and 16. Neither has a case been supported that Kawamoto can be modified to supply the missing limitations in view of Kuo and Yamamoto, or what was well known by a person of skill at the time of the invention. Therefore, the Applicant requests that the rejection of claims 1-2, 4, 6-9, 11-17, 19, 21-24, and 26-30 be removed.

Applicant has reviewed the references made of record and asserts that the claims are patentable over the references made of record. It is believed that the application is in condition for allowance and reconsideration is earnestly solicited.

Respectfully submitted,

Date: 8/22/2008

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